# TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104 Phone No. (512) 322-2212 Fax No. (512) 463-6693

# PRODUCT EVALUATION

RWA-03

Effective November 1, 2013

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code** (IRC) and the **International Building Code** (IBC). This product shall be subject to reevaluation in **August 2015**.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Acrylit<sub>GC</sub> Translucent Daylighting R Panels, Non-Impact Resistant, manufactured by

**Stabilit** 

AV. Gustovo Baz #284 Tlalnepantla, Edo. De Mexico 54060

and distributed by

F&F Assemblies 1720 US HWY 190 Oakhurst, TX 77359 (936) 377-3585

will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

### PRODUCT DESCRIPTION

# **General Description:**

The Acrylit<sub>GC</sub> Translucent Daylighting R panels are manufactured from 8 oz, 100% acrylic translucent panel woven roving fiberglass reinforcement. The panel has 36" of coverage,  $1\frac{1}{4}$ " tall rib and a thickness of 0.065".

Product Uses: The Acrylit<sub>GC</sub> Translucent Daylighting R panels may be used for roof and wall panels.

**Product Identification:** A label is affixed to the perimeter of the daylighting panels. The label includes the product name; the manufacturer name the design pressure rating; and the following applicable standards: ASTM E 1592-01.

# **LIMITATIONS**

Roof and Wall Framing: The Translucent Daylighting R panels shall be installed over open steel purlins.

**New Roof and Wall Framing:** The roof and wall framing members shall be installed to resist the wind loads requirements of the International Residential Code and International Building Code.

Design Wind Pressures: Design wind pressure limitations are specified in Table 1.

**Roof Slope:** The translucent panels may be installed on roofs with a roof slope as low as  $\frac{1}{2}$ :12 if sealant is used on the panel side laps. If sealant is not used on the panel side laps, then the minimum roof slope is 2:12.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is not permitted.

**Impact Resistance:** These translucent roof panels do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These translucent roof panels are permitted for use in the **Inland II** zone. The daylighting panel assembly may be installed at any height on a structure located in the **Inland II** zone as long as the design pressure rating for the daylighting panel assembly is not exceeded. The panels shall not be used in the **Inland I** or **Seaward** zone.

**Wall or Roof Bracing:** The translucent panels shall not be used as lateral bracing for walls or as a diaphragm for a roof. A separate wall bracing system shall be provided in the plane of the assembly to resist lateral loads.

Table 1
Attachment of 36" wide Translucent Daylight R Panels to Steel Purlins

Attachment of 36 wide Translucent Daylight R Panels to Steel Punins		
Design Wind Pressure (psf)	Purlins	Attachment of Panel to Steel Purlins
-120	Minimum 16 gauge; 2'-6" on center	SFS Intec Weather Gard #12-14 x 1" (or longer) self-drilling screws with Zac head with 1 3/8" steel washer and neoprene sealing washer
-106	Minimum 16 gauge; 3'-0" on center	SFS Intec Weather Gard #12-14 x 1" (or longer) self-drilling screws with Zac head with 1 3/8" steel washer and neoprene sealing washer
-92	Minimum 16 gauge; 3'-6" on center	SFS Intec Weather Gard #12-14 x 1" (or longer) self-drilling screws with Zac head with 1 3/8" steel washer and neoprene
-78	Minimum 16 gauge; 4'-0" on center	sealing washer  SFS Intec Weather Gard #12-14 x 1" (or longer) self-drilling screws with Zac head with 1 3/8" steel washer and neoprene sealing washer
-64	Minimum 16 gauge; 4'-6" on center	SFS Intec Weather Gard #12-14 x 1" (or longer) self-drilling screws with Zac head with 1 3/8" steel washer and neoprene sealing washer
-50	Minimum 16 gauge; 5'-0" on center	SFS Intec Weather Gard #12-14 x 1" (or longer) self-drilling screws with Zac head with 1 3/8" steel washer and neoprene sealing washer

#### INSTALLATION INSTRUCTIONS

**General:** The translucent panels shall be installed in accordance with the manufacturer's installation instructions and this product evaluation report.

**Steel Framing:** The translucent panels shall be secured to minimum 16 gauge steel purlins (minimum Fy =50 ksi) for the spacing of the purlins specified in Table 1.

Anchorage to Roof and Wall Framing: The translucent panels shall be fastened in accordance with Table 1. The translucent panels shall be secured to the steel purlins with SFS Intec Weather Gard #12-14 x 1" (or longer) self-drilling screws with Zac head with  $1\frac{3}{8}$ " steel washer and neoprene sealing washer. The screws are spaced a maximum of  $3\frac{1}{2}$ " o.c. The panel side laps are secured with #6 x 1" Grommet spaced a maximum of 10" o.c. along the entire length of the side lap. The fasteners shall be long enough to ensure a minimum penetration of 3 pitches of thread below the steel purlin. Refer to the fastener pattern figure below.

**Trims, Closures, and Accessories:** Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim shall be installed as required by the manufacturer.

**Note:** The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

